

development for this new medium. (0 Refs)

Subfile: C

Descriptors: client-server systems; hypermedia markup languages; information resources; integrated \*voice\*/data communication; online front-ends; speech-based user interfaces

Identifiers: VoiceXML; World Wide Web-based distributed conversational applications; interpreter; \*XML\*-based markup language; distributed Web-based \*voice\* services; content delivery; \*voice\*-response applications; data services; client/server paradigm; application development

Class Codes: C5260S (Speech processing techniques); C6130M (Multimedia); C6140D (High level languages); C7210N (Information networks); C6180N (Natural language processing); C7250N (Search engines); C6150N (Distributed systems software)

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DIALOG(R) File 2:INSPEC

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6711084 INSPEC Abstract Number: C2000-11-5260S-001

Title: The promise of a \*voice\*-enabled Web

Author(s): Danielsen, P.J.

Author Affiliation: Dept. of Software Production Res., Lucent Technol. Bell Labs., Naperville, IL, USA

Journal: Computer vol.33, no.8 p.104-6

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Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: Many computing professionals have heard of \*XML\*, and some use it to describe text, images and other data with rich structure. The author discusses an innovative use of \*XML\*, called VoiceXML, to support human-computer dialogs via spoken input and audio output. VoiceXML defines dialogs between humans and machines in terms of audio files to be played, text-to-speech synthesis and speech recognition capabilities, and touch-tone input. The author reviews the existing architectures for World Wide Web and telephone services, describes how VoiceXML enables consolidation of service logic for Web and phone, and summarizes the features of the VoiceXML 1.0 specification. Implementation of VoiceXML clients and VoiceXML services has begun in many of the VoiceXML Forum's member companies and will soon be available in the marketplace. The World Wide Web \*Voice\* \*Browser\* working group has adopted VoiceXML 1.0 as the basis for the dialog markup language that is part of its speech user interface framework. (0 Refs)

Subfile: C

Descriptors: hypermedia markup languages; information resources; speech recognition; speech synthesis; speech-based user interfaces

Identifiers: \*voice\*-enabled World Wide Web; \*XML\*; VoiceXML 1.0 specification; human-computer dialogue; spoken input; audio output; audio files; text-to-speech synthesis; speech recognition capabilities; touch-tone input; service architectures; telephone services; service logic

consolidation; World Wide Web \*Voice\* \*Browser\*; dialogue markup language; speech user interface

Class Codes: C5260S (Speech processing techniques); C7210N (Information networks); C6140D (High level languages); C6180N (Natural language processing)

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18/9/9

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6704307 INSPEC Abstract Number: B2000-10-6210R-072, C2000-10-3370G-001

Title: Admission and flow control for multimedia CDMA

Author(s): Comaniciu, C.; Mandayam, N.; Famolari, D.; Agrawal, P.

Author Affiliation: Wireless Inf. Network Lab., Rutgers Univ., Piscataway, NJ, USA

Conference Title: 2000 IEEE International Conference on Multimedia and Expo. ICME2000. Proceedings. Latest Advances in the Fast Changing World of Multimedia (Cat. No.00TH8532) Part vol.3 p.1265-8 vol.3

Publisher: IEEE, Piscataway, NJ, USA

Publication Date: 2000 Country of Publication: USA 3 vol. xxxv+17778 pp.

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Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: QoS guarantees for an integrated CDMA system can be provided by a combination of admission and flow control. The admission control restricts the number of users in the system such that QoS requirements for all calls can be met. The flow control balances the system interference on a slot-by-slot basis such that bit error rate requirements are met for all users and the real-time users are given the highest priority. In this paper, we analyze the scenario of a single-cell DS-CDMA system carrying both \*voice\* and WWW users. A new admission control is proposed and analyzed for Web \*browsing\* \*sessions\*. The challenge in designing admission control for Web users is due to the fact that the Web traffic description is based on heavy tailed distributions. Thus, an accurate estimate for the average offered rate for a Web \*session\* is hard to compute. Our proposed admission scheme adaptively modifies the admission threshold at each time slot based on new average load measurements. The admission threshold is computed such that the probability of \*session\* dropping is maintained below a prescribed value. The flow control mechanism is an extension of the one proposed by C. Comaniciu et al. (2000), who used the residual capacity from \*voice\* users to allocate resources for WWW users. (12 Refs)

Subfile: B C

Descriptors: code division multiple access; flow control; information resources; integrated \*voice\*/data communication; multimedia communication; probability; quality of service; resource allocation; telecommunication congestion control; telecommunication traffic

Identifiers: admission control; flow control; multimedia CDMA; service